

REMARKS

Claims 1-18 are pending in the application.

Claims 1-18 stand rejected.

Rejection of Claims under 35 U.S.C. § 103

Claims 1-6, 10, 14, 15, 16, 17 and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Vahalia, et al., U.S. Patent No. 6,625,591, in view of O'Toole, Jr., et al., U.S. Patent No. 6,279,112.

While not conceding that the cited references qualify as prior art, but instead to expedite prosecution, Applicants have chosen to respectfully disagree and traverse the rejection as follows. Applicant reserves the right, for example, in a continuing application, to establish that the cited references, or other references cited now or hereafter, do not qualify as prior art as to an invention embodiment previously, currently, or subsequently claimed.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. In teaching or suggestion to make the claimed combination and the reasonable expectation of success, must both be found in the prior art and not based on Applicants' disclosure. The initial burden is on the Examiner to provide some suggestion of the desirability

of doing what the inventor has done. To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest that the claimed invention or the Examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references. MPEP 2142.

As to the last requirement, Applicants respectfully submit that all the elements of the claimed invention, as claimed in claim 1, for example, are not taught by Vahalia, in light of O'Toole, and even then, in light of the level of skill in the art at the time of invention (which Applicant maintains is neither appropriate nor defined in the Office Action), in any permissible combination. Claim 1 recites:

19. A method for transforming one or more lists for a data communications system into a single list, each list of the one or more lists including a plurality of entries, the method comprising:

- removing non-terminating entries from the plurality of entries in the one or more lists, the
 - removing each non-terminating entry removing all but a last non-terminating entry in any of the one or more lists; and
- eliminating from the plurality of entries one or more entries that provide for one or more impossible actions, wherein:
 - the removing of non-terminating entries and the eliminating of one or more entries that provide for impossible actions, if any, produce a single list preserving tracing of the entries in the single list to the plurality of entries.

The Office Action cites Vahalia (Fig. 4, elements 61-64, and col. 6, lines 7-27) as teaching the first element of claim 1. Applicants respectfully submit that the cited portions of Vahalia simply teach linked lists, and simply acknowledge that entries in the linked lists

described therein can be removed. Vahalia, as well as O'Toole, fail to teach the removal of non-terminating entries that results in the removal of all but a last non-terminating entry in any of the one or more lists. Nowhere in either reference, and certainly not in the skill in the art at the time of invention, can such a teaching be found. This is to be expected, of course, because neither Vahalia nor O'Toole is concerned with flattening an access control list, nor are these references concerned with preserving statistics when doing so.

In fact, as can be seen, even if some sort of correspondence between the elements of Vahalia and those of the claimed invention existed (which Applicants respectfully maintain would be erroneous), Vahalia fails to show, teach or suggest the removal of entries (non-terminating or otherwise). This is demonstrated, for example, by the existence of zero entries (e.g., elements 67 and 68 of Fig. 4 of Vahalia). Moreover, the cited portions of Vahalia fail to teach how any entry might be removed.

Moreover, Vahalia fails to even recognize the existence of non-terminating entries, which explains Vahalia's failure to teach their removal. O'Toole does not remedy this infirmity. By leaving zero entries in the linked list, Vahalia fails to recognize the need for their removal, and given O'Toole's failure to teach the removal of such entries, the element in question cannot be made obvious by their combination.

The Office Action then goes on to state that the second element of claim 1 is taught by Vahalia (col. 6, lines 7-17), save for teaching "...produce a single list preserving tracing of the entries in the single list to the plurality of entries." While the Office Action correctly states that "...[producing] a single list preserving tracing of the entries in the single list to the plurality of entries" is not taught by Vahalia, Vahalia also fails to teach the remainder of the second element of claim 1, as well.

The cited portion of Vahalia (col. 6, lines 7-17) is said to teach:

eliminating from the plurality of entries one or more entries that provide for one or more impossible actions, wherein:

the removing of non-terminating entries and the eliminating of one or more entries that provide for impossible actions, if any, ...

As an initial matter, the cited section reads as follows:

FIG. 4 shows a preferred format for a hash list linked to a head-pointer 61 and a tail-pointer 62. The hash list includes a set of blocks, such as the set including a block generally designated 63 and a block generally designated 64. Each block includes a predetermined number of entries, and if the last entry in the block is not empty, then it points to a next block in the hash list. Except for the last entry of a block, an entry in the hash list is either zero (designated in the drawings as a crossed block) or is a pointer to one of the directory entries (55 in FIG. 3). A hash list entry is zero as a result of removing a pointer from the hash list.

Applicants are at a loss as to how the cited portion of Vahalia teaches the elimination of impossible actions, when in fact, any entries that might be said to be taught by Vahalia fail to include anything that might even be considered any kind of action, impossible or otherwise. Furthermore, Applicants respectfully submit that the entries in Vahalia, as well as Vahalia in

general, fail to demonstrate an appreciation of the actions such entries might represent, in addition to whether that action, in the claimed process of combination, become impossible for some reason. This line of reasoning applies with equal force to O'Toole, which also fails to show, teach or suggest such impossible actions, and so, a method or apparatus for (or capable of) combining access control lists in a manner that preserves statistics.

The Office Action, in this regard, states that an "impossible action is when trying to remove the last entry or make the last entry zero" This statement is defective for a number of reasons. First, this statement seems to rely on skill in the art for a teaching of a recited limitation by the level of skill in the art at the time of invention (as Vahalia and O'Toole do not teach such a limitation), which, in and of itself, is improper because no justification nor official notice is taken in this statement.

Applicants therefore respectfully assert that this rejection fails to demonstrate any teaching of an impossible action that presents an element that corresponds to the actual claim limitations. As noted by the predecessor of the United States Court of Appeals for the Federal Circuit, the United States Court of Customs and Patent Appeals, "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (C.C.P.A. 1970).

The foregoing being the case, the Office Action would then appear to rely on the fact that such teachings are somehow inherent, either in Vahalia, O'Toole or the ordinary skill in the art, or possibly in their combination. However, the Board of Patent Appeals and Interferences has spoken on this issue:

“In relying on a theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.” *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original).

Secondly, the statement confuses an action performed on the data structure described in Vahalia (though no such statement is made in the cited portions of Vahalia or O’Toole) with an action represented by an entry in the claimed invention. In the claimed invention, each ACL entry represents one or more actions that are to be taken in a given situation. If for some reason, upon the ACLs being combined, the action cannot be taken, is redundant or some such, the action is deemed impossible. This is completely unrelated to whether or not an entry is removable. In this regard, the statement indicates that the removal of a last entry or making the last entry zero is impossible. Vahalia makes no such statement. Applicants have no basis for believing that such an action is impossible, and in fact, believe that such an action is quite possible (e.g., the head and tail pointers simply point at each other, and no entries would exist, upon the removal of the last entry).

Thus, Vahalia and O’Toole, failing to even recognize the possibility of an impossible action, cannot be said to show, teach or suggest the elimination of such actions, as claimed in claim 1, for example. Furthermore, given the foregoing arguments, Vahalia cannot be said to show, teach or suggest the production of “a single list preserving tracing of the entries in the single list to the plurality of entries[,]” a fact which is correctly recognized in the Office Action.

Unfortunately, despite representation to the contrary in the Office Action, O'Toole also fails in this regard.

The Office Action cites O'Toole for it's statement at col. 6, lines 27-31, that:

The client computer is programmed to permit the user to inquire which access tickets are in the user's access control list and to display the icons corresponding to each of the access tickets. These icons are included in the channel objects received by the client computer.

Once again, Applicants are unable to discern how the above passage teaches "[producing] a single list preserving tracing of the entries in the single list to the plurality of entries." The claimed invention preserves tracing of the entries in the single list to the plurality of entries, while O'Toole simply permits a user to inquire which access tickets are in the user's access control list. Were two of O'Toole's user's access control lists combined (though Applicants respectfully note that no such teaching is provided anywhere in the references or in the skill in the art at the time of invention), no teaching exists in Vahalia, O'Toole and/or the skill in the art at the time of invention, that would preserve any tracing of entries in such a case.

The Office Action then states that "[i]t would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated O'Toole, Jr. et al's teaching of the racing of the entries in the list with the teachings of Vahalia et al, for the purpose of improving the ability of a network '... to allow access to the directory to satisfy file access requests for searching ...' as stated by Vahalia in lines 35-38 of column 2."

The applicants respectfully submit that the Examiner has failed to establish a *prima facie* case of obviousness. In addition to the claim elements not taught or suggested by the cited references as described above, the Examiner has not shown that there is some understandable suggestion or motivation to combine Vahalia and O'Toole, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art.

Vahalia is directed to the following subject matter:

“To accelerate searching of large file system directories, hashing information for a selected directory is compiled and retained in random access memory prior to a need for access to the directory to satisfy a file access request from an application. No change in the on-disk file system representation is required, nor is there any need for nonvolatile storage of the hashing information. If memory is scarce, the hashing information can be incomplete yet give hints for searching the most-recently-accessed directory entries. In a preferred implementation, the hashing information for a directory includes a hash table for searching for names of objects such as files, subdirectories or links in the directory, and a hash table for searching for free space in the directory.” (Vahalia, Abstract)

O'Toole is directed to the following subject matter:

“One technique involves transmitting from a server computer to a client computer a document containing a channel object corresponding to a communication service, and storing an access ticket that indicates that a user of

the client computer permits the information source computer to communicate with the user over a specified channel. Another technique involves transmitting smart digital offers based on information such as coupons and purchasing histories stored at the computer receiving the offer. Another technique involves transmitting from a server computer to a client computer a request for a user's personal profile information, and activating a client avatar that compares the request for personal profile information with a security profile of the user limiting access to personal profile information. Another technique involves transmitting from a server computer to a client computer a document containing an embedded link, activating the embedded link at the client computer and recording activation of the embedded link in a metering log.” (O’Toole, Abstract)

The Office Action cites Vahalia, at lines 35-38 of column 2, which states:

“When the need arises for access to the directory to satisfy the file access request from the application program, the hashing information is used for searching the directory to satisfy the file access request.”

Applicants respectfully submit that this statement fails to recognize the need for O’Toole’s method for controlling the transfer of information using a network. Applicants further respectfully submit that it can be seen that O’Toole provides no teachings on the subject of satisfying file access requests or the use of hashing information for searching directories in satisfying such requests.

The foregoing being the case, Applicants respectfully submit that they are unable to discern in either reference the suggestion that such a combination might be desirable, and so are left with the assumption that the Office Action is merely noting that the references *could* be combined. As noted in MPEP § 2143.01, the fact that references can be combined or modified is not sufficient to establish *prima facie* obviousness. Moreover, the applicants respectfully submit that the Office Action fails to explain what specific understanding or technological principle within the knowledge of one of ordinary skill in the art would have suggested the combination, as required by, for example, *In re Rouffet*, 47 USPQ2d 1453 (Fed. Cir. 1998).

In fact, Applicants respectfully submit that one of skill in the art at the time of invention would not only not be motivated to combine the references, but that one of skill in the art could not successfully do so to create the claimed invention. As noted, Vahalia is directed to an efficient in-memory representation of large file system directories. O'Toole, by contrast, is directed to the controlled transfer of information in computer networks. By definition, Vahalia is directed to the maintenance of information within a computer, while O'Toole is directed to the transfer of information between computers. Applicants are unable to understand how the two techniques could be successfully be combined, given that they are directed to such different subject matter areas.

Even if combined, Applicants respectfully submit that the resulting combination would be an efficient in-memory representation of large file system directories, information regarding which could be transferred over a computer network. This is hardly a method and system capable of producing a single list that preserves the tracing of the entries in the single list to the plurality of entries, as in the claimed invention.

In light of the foregoing arguments, Vahalia, even in light of O'Toole and the level of skill in the art at the time of invention (which Applicant maintains is neither appropriate nor properly defined in the Office Action), in any permissible combination, fails to make obvious the claimed invention, as claimed in independent claims 1, 10 and 16-18. Moreover, Applicant respectfully asserts that claims 2-6 and 14-15, which depend from independent claims 1 and 10, are also allowable, for at least the foregoing reasons.

Claim 7 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Vahalia, et al., U.S. Patent No. 6,625,591 and O'Toole, Jr., et al., U.S. Patent No. 6,279,112, in view of Ng, et al., U.S. Patent No. 5,838,874. Applicant respectfully traverses this rejection for at least the foregoing reasons.

Claims 8 and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Vahalia, et al., U.S. Patent No. 6,625,591, O'Toole, Jr., et al., U.S. Patent No. 6,279,112 and Ng, et al., U.S. Patent No. 5,838,874, in view of Kloth, et al., U.S. Patent No. 6,643,260. Applicant respectfully traverses this rejection for at least the foregoing reasons.

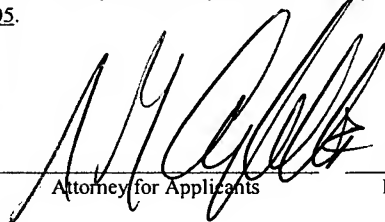

Claims 11, 12 and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Vahalia, et al., U.S. Patent No. 6,625,591 and O'Toole, Jr., et al., U.S. Patent No. 6,279,112, in view of Kloth, et al., U.S. Patent No. 6,643,260. Applicant respectfully traverses this rejection for at least the foregoing reasons.

In light of the foregoing arguments, Vahalia, even in light of O'Toole, the other cited references and even the level of skill in the art at the time of invention (which Applicant maintains is neither appropriate nor properly defined in the Office Action), in any permissible combination, fails to make obvious the claimed invention, as claimed in independent claims 1,

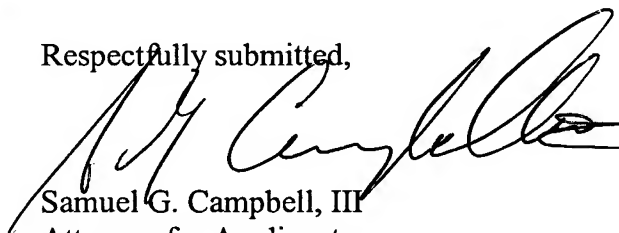
10 and 16-18. Moreover, Applicant respectfully asserts that claims 2-9 and 11-15, which depend from independent claims 1 and 10, are also allowable, for at least the foregoing reasons.

CONCLUSION

In view of the amendments and remarks set forth herein, the application is believed to be in condition for allowance and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is invited to telephone the undersigned at 512-439-5084.

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| I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on <u>October 18, 2005</u> . | |
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| Attorney for Applicants | Date of Signature |

Respectfully submitted,



Samuel G. Campbell, III

Attorney for Applicants

Reg. No. 42,381

Telephone: (512) 439-5084

Facsimile: (512) 439-5099